Patent claims:

1. A method for electrochemically stripping components, in particular gas turbine components, the component to be stripped being connected to a positive terminal of a voltage source or current source and an electrode to a negative terminal of the same, wherein an electrode, which is precisely adapted to a region of the component to be stripped, is used in such a way that a gap between the region of the component to be stripped and the electrode is approximately the same size over the entire region to be stripped.

2. The method as recited in claim 1,
wherein a surface of the electrode facing the component to be stripped is precisely adapted in its three-dimensional contour to the three-dimensional contour of a surface of the region to be stripped.

3. The method as recited in claim 1 or 2,
wherein the gap between the region of the component to be stripped and the electrode is smaller than 2 mm over the entire region to be stripped.

4. The method as recited in one or more of claims 3,
wherein the gap between the region of the component to be stripped and the electrode is smaller than 1 mm over the entire region to be stripped.

5. The method as recited in claim 3 or 4,
wherein the gap between the region of the component to be stripped and the electrode is approximately constant over the entire region to be stripped and is between 10 µm and 1 mm in size.

6. The method as recited in one of the claims 1 through 5,
wherein the electrode executes a mechanical vibration in order to replace an electrolyte in this manner.

7. The method as recited in claim 6,
wherein a frequency of the mechanical vibration is between 1 Hz to 100 Hz, and an amplitude of the mechanical vibration is between 0.1 mm and 2 mm.

8. The method as recited in one or more of the claims 1 through 7,
wherein a porous electrode is used through which the electrolyte is supplied or replaced.

9. The method as recited in one or more of the claims 1 through 8,
wherein the current applied or the voltage applied for the stripping process is time pulsed.

10. The method as recited in claim 9,
wherein the pulse frequency for the current or the voltage is between 1 Hz and 10 kHz.

11. The method as recited in claim 9 or 10,
wherein the average amperage applied for the stripping process is between 0.1 A/mm^2 and 1.5 A/mm^2.

12. The method as recited in one or more of the claims 1 through 11,
wherein the process parameters used for the stripping process are selected in a way that prevents a passivation of the region to be stripped, so that the entire process of stripping the region of the component from which coating is to be removed is able to be implemented in one sequence of operation until complete coating removal is achieved.

13. The method as recited in one or more of the claims 1 through 12,
wherein the stripping process is stopped or deenergized, a change in the electric potential being used as a criterion for stopping or deenergizing the stripping process.

14. A use of the method as recited in one or more of the claims 1 through 13 for stripping gas turbine components, in particular for stripping gas turbine blades made of a titanium-based alloy or of a nickel-based alloy, when repairing the same.

15. A use of the method as recited in one or more of the claims 1 through 13 for removing metallic coatings from gas turbine components, in particular from gas turbine blades, the metallic coating to be removed being adapted to the composition of the gas turbine component.

16. A use of the method as recited in one or more of the claims 1 through 13 for removing a coating of titanium nitride (TiN) or of titanium aluminium nitride (TiAlN) or of titanium zirconium nitride (TiZrN) or of chromium aluminium nitride (CrAlN) or chromium nitride (CrN) from a gas turbine component made of a titanium-based alloy.

17. A use of the method as recited in one or more of the claims 1 through 13 for removing a coating of titanium nitride (TiN) or of titanium aluminium nitride (TiAlN) or of titanium zirconium nitride (TiZrN) or of chromium aluminium nitride (CrAlN) or chromium nitride (CrN) from a gas turbine component made of a nickel-based alloy.

18. An electrode for electrochemically stripping components, in particular gas turbine components,
wherein the electrode is an impression of a component region to be stripped, the impression being formed from a moldable, electrically conductive compound which is preferably cured.

19. The electrode as recited in claim 18,
wherein it is porous, and the moldable, electrically conductive compound is a sintered material.